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Panorama

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A voice for Concordia University's Faculty of Arts and Science

The new face of science

With a new building and dozens of young professors, Concordia is reshaping the teaching and research of science

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Rebirth at Loyola campus

There is no doubt that the opening of the Loyola Science Complex marks a momentous occasion in the history of Concordia University. The new facility and its state-of-the-art equipment will certainly revolutionize the teaching and research of science at Concordia, placing us at the forefront of scientific study in Canada.

But the construction of the Science Complex also symbolizes an exciting renewal for the Loyola Campus – one of Concordia's grand jewels. Where once sat a parking lot, now stands an $85-million complex, where more than 100 faculty members and other researchers are engaged in cutting-edge research while training new generations of budding science students.

It wasn't long ago that we wondered aloud about the future of the Loyola Campus, with its precious green spaces and ornate buildings, some of which date back to 1915. As Concordia strived to become one of Canada's leading "cosmopolitan" universities, there was talk about consolidating our operations on the Sir George Williams Campus, in the midst of busy downtown Montreal.

I, among others, have long pushed for Loyola to play a bigger role in the future of Concordia. It was a vision that proved to be a big impetus behind the decision to build a science centre on this campus.

Some will argue that placing the "wet" science disciplines at Loyola runs contrary to the liberal arts tradition set forth by Loyola College's Jesuit leaders. I see it rather as an opportunity to reinvest in our Loyola Campus and to build upon those strong Jesuit traditions, which have played such an important role in the shape of Concordia University today.

And, of course, we have only just begun our work. Plans are in the works to renovate the upper floors of the Henry F. Hall Building for our Social Science departments and the J.W. McConnell Building for our Humanities departments. And within the next few months, we expect to announce detailed plans for a new home at Loyola for our Departments of Journalism and Communication Studies. I suspect that the founders of Loyola College would be proud of our efforts.

Martin Singer, Dean
Faculty of Arts & Science

Cover photo by Andrew Dobrowolskyj. From the left, Emma Despland, Alain Leroux, Yves Gélinas, and Andrew Chapman are among the new scientists hired at Concordia in the last four years. See their stories, starting on page 4.
Inset photo by Ryan Blau. A mover carting boxes into the Loyola Science Complex in July. See story, page 8.

A new home for science

After years of planning and months of construction, the Loyola Science Complex opens for business

Pierre Dalpé

The "A" wing of the Loyola Science Complex

It began, innocently enough, with four words scrawled onto a napkin – "move science to Loyola." The idea came to Martin Singer, Dean of Concordia University's Faculty of Arts and Science, during a 1998 meeting to discuss the future of the university's west-end Loyola Campus. He slipped the napkin to Jack Lightstone, the university's Provost, and the two agreed to propose the idea on the spot.

Five years and $85 million later, the dream has become a reality, culminating with the official opening this month of the Loyola Science Complex, a state-of-the-art facility that houses the Faculty's natural science departments and promises to revolutionize scientific study at Concordia.

The roughly 400 faculty members, research staff, support staff and graduate students who are based in the building moved into their new offices and laboratories over the course of the past summer (see story, photos on page 8).

The new complex features 33,000 square meters of space – roughly half the size of the downtown Henry F. Hall Building – occupying five above-ground stories, two basement levels and a mechanical penthouse. It will house the Departments of Biology, Chemistry and Biochemistry, Exercise Science, Physics and a major component of Psychology, as well as Science College, the Centre for Structural and Functional Genomics, the Centre for Studies in Behavioural Neurobiology and several smaller research centres and support facilities. Most of the academic units have seen their space increase substantially.

"It's a magnificent building," says Robert Kilgour, Chair of Concordia's Department of Exercise Science. "For the first time at Concordia, we will be working in facilities that have been designed and built for each of our particular teaching and research needs."

Until this year, Concordia's science departments were housed in two aging buildings – Loyola's Drummond Science Building, which was built in 1961, and the Hall Building, which opened in 1965. But with the growth of science at Concordia and with dramatic advances in the study of most science fields, classrooms and laboratories in those buildings became crowded and outdated.

When the Hall and Drummond buildings were constructed, "they were designed with a heavy orientation towards teaching and only a minor orientation towards research," says Biology Professor Robert Roy, Vice-Dean of Planning for the Faculty of Arts and Science. "And on the teaching side, the general trend in science has been to move from what tended to be descriptive study to more emphasis on experimental work, which requires specialized facilities and increasingly sophisticated equipment."

(see *New home*, page 16)

> "For the first time, we will be working in facilities designed and built for our particular teaching and research needs."

Ryan Blau

Leroux, with Moreau: stretching for answers

A stroke of genius

Exercise Scientist provides new hope to victims of neuromuscular disorders

To his contemporaries in the science community, Alain Leroux is a young researcher with a bright future ahead of him. To Claire Moreau, who has spent nearly 40 years living with the devastating effects of a stroke, Leroux is nothing short of a saviour.

Moreau is one of dozens of Quebecers who claim to have regained partial use of once-paralyzed muscles thanks in part to Leroux's research into the rehabilitative effects of exercise. After 40 years of relying on a cane, she has built up enough strength in her right leg to walk on her own.

"With Alain's help, I am much more solid on my feet. It's improved my quality of life," she says.

Leroux, a professor in Concordia University's Department of Exercise Science, is in the process of revolutionizing the medical community's approach to stroke victims. Until recently, it was believed that victims could recover some muscle function only in the initial weeks after the trauma, during what is called the acute stage of recovery. When patients were discharged from the hospital, they were told that they had little hope of further improvement.

But a new generation of exercise scientists like Leroux has since proven that regular exercise can in fact help stroke victims regain the use of their paralyzed limbs, even years after a stroke.

"Until now, the recovery process was believed to be over at nine to 12 months," Leroux says. "But we're showing scientifically that this is not true, that important gains can be made long after a stroke hits."

Leroux, who arrived at Concordia four years ago, has conducted most of his experiments with actual stroke victims; he regularly visits an adapted exercise clinic at Montreal's Cummings Jewish Centre for Seniors, where victims of neuromuscular disorders take part in eight-week rehabilitation sessions. The seniors have their registration fees waived in exchange for their participation in the project.

The clinic existed long before Leroux arrived in town, with supervisors always believing that they were making progress. But Leroux, armed with an arsenal of high-tech machines, is now able to generate data showing that those who stick with the exercise program can improve their muscle strength, balance and overall mobility.

One piece of equipment, a platform lined with more than 2,000 electronic sensors, is able to measure the amount of force that stroke victims can generate in each of their legs. One of Leroux's studies has found that eight weeks of repeated leg exercises enables stroke victims to increase the strength of their paralyzed muscles by as much as 30 per cent.

"We've seen huge improvements. People are able to use the affected sides of their bodies more effectively," says Leroux, who has presented his findings at three conferences.

"And if you were to do a survey of the class, 90 percent of the people

(see *Strokes*, page 16)

> "Until now, the recovery process was believed to be over at nine to 12 months. But we're showing that this is not true."

Going to great depths

Chemist searches the ocean floor for answers to global warming

Yves Gélinas doesn't need to be convinced about the merits of conservation. He rides his bicycle to work every day and describes himself as an avid recycler.

But the Concordia University chemistry professor isn't planning to stop there. He is determined to use his scientific knowledge to convince others of the dangers of increased carbon dioxide emissions – even if he has to descend to the depths of the ocean to prove it.

Gélinas searches for his scientific evidence in the muddy marine sediments that lie on the bottom of the world's oceans, lakes and rivers. When carbon dioxide is released into the atmosphere, much of it is absorbed by microscopic plankton floating on the water's surface. When the plankton die, they sink to the sea bed, transferring their carbon dioxide to marine sediment.

By retrieving this sediment and analyzing its chemical makeup, scientists like Gélinas can chart a detailed record of past carbon dioxide emissions, figuring out in the process whether these increases are responsible for the vast climatic changes of years past. He hopes that his findings will eventually be integrated into the growing body of scientific work warning against the dangers of increased pollution and global warming.

"If we can understand what happened to affect climate changes in the past, then we might be better able to predict what's going to happen in the future," Gélinas explains. "We've known for years that global warming is happening. Now we're trying to prove it scientifically."

In order to embark upon his research, Gélinas first needs to collect samples. So, twice a year he travels to Rimouski, a town five hours upriver from Montreal, where he boards a boat equipped with special cylinders that can scoop up mud and rocks from the bottom of the St. Lawrence River without mixing up the layers.

He has also extracted samples from waters off the Mexican coast and from Puget Sound in Washington State.

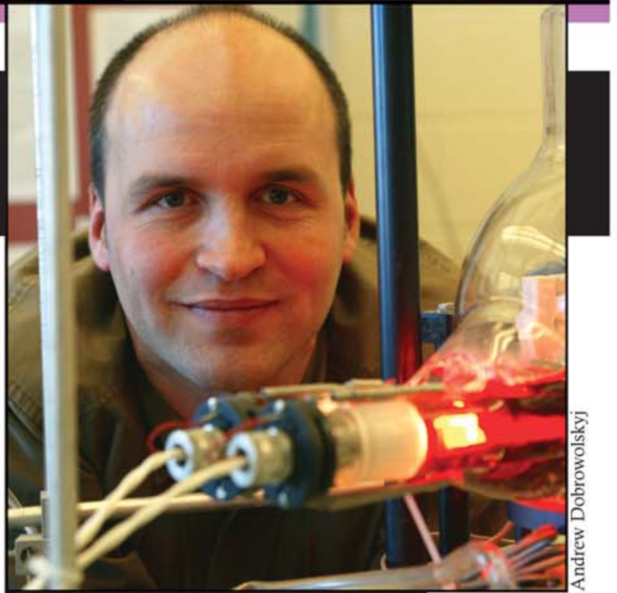
Back in his lab at the Loyola Science Complex, Gélinas first extracts organic molecules from the sediments. Using a mass spectrometer, he can then get a precise reading on the chemical makeup of the different molecules and find links between their composition and carbon dioxide in the atmosphere.

"We get a different message, or fingerprint, from each molecule," he says.

Gélinas, who joined Concordia's Department of Chemistry and Biochemistry in 2001, developed his passion for oceanography during a post-doctoral fellowship at the University of Washington, where he trained under renowned oceanographer John Hedges.

He spent his first two years at Concordia based on the eleventh floor of the Henry F. Hall Building, but he says that he was more than happy to

(see *Great depths*, page 16)



Andrew Dobrowolskyj

Gélinas: combing the ocean floors

> "We've known for years that global warming is happening. Now we're trying to prove it scientifically."

Digging for answers

Biologist tries to make sense of insect plagues

Ryan Blau

Despland: charting a bug's life

> "The more we understand about insect behaviour, the better we'll be at determining at what point they become a cause for concern."

As a child, Emma Despland says she remembers being fascinated by the furry caterpillars that would slink up and down the apple tree in her parents' backyard. Little did she know that she would wind up devoting her life to studying the habits of those caterpillars and an assortment of other bugs.

But since joining Concordia University's Department of Biology in January of 2002, Despland has immersed herself in the life of bugs. The research is anything but frivolous; Despland is trying to figure out what causes usually harmless insects to occasionally organize themselves into massive swarms capable of inflicting devastating destruction upon trees and other vegetation.

Although rare, the outbreaks can have severe economic consequences on industries that rely on the successful growth of trees or crops. Take the case of the forest-tent caterpillar, the species that Despland is currently studying. An infestation two years ago in Quebec's northern Abitibi region put a dent in the province's pulp-and-paper industry and proved to be a real nuisance for local inhabitants.

"The outbreaks can be quite spectacular," Despland says. "There are stories from the 19th century of trains having to stop because the tracks were covered by millions of these caterpillars."

From her new laboratory in the Loyola Science Complex, where she breeds hundreds of caterpillars a month, Despland and her team of graduate students monitor the insects' feeding patterns and social behaviour as their diets change. She is most interested in understanding how far the caterpillars are willing to travel for food and whether their appetites change when they find themselves in large groups.

Although her research is still in the early stages, Despland is hopeful that her findings will one day be able to provide forestry departments with preventive measures to ward off imminent outbreaks.

"These caterpillars are not particularly smart, they can barely see and they don't move very fast. Yet when they work together in groups, they're able to travel great distances, make good decisions about what to eat and ultimately cause so much destruction," she says. "The more we understand about insect behaviour, the better we'll be at determining at what point they become a cause for concern."

Despland, whose father, Michel, is a Religion Professor at Concordia, became interested in the boom and bust cycles of insects while completing a PhD at Oxford University in England. There, she was involved in an extensive study in North Africa involving the behaviour patterns of desert locusts, who have been known to cut wide swaths of destruction across Africa and Asia. She realized that she could use that research in Canada, with its swarms of caterpillars, moths and other insects. Ⓟ

Research to remember

Psychologist hopes to unravel the mysteries of memory

Andrew Dobrowolskyj

Chapman: studies of the mind

> "If we can understand how memories are created and stored, we'll have a better idea of what goes wrong as memory fails us."

With all due respect to his colleagues at Concordia University, you'd be hard-pressed to find a professor on campus whose research is more memorable than that of Andrew Chapman's – at least in the literal sense.

Chapman, a Professor in Concordia's Department of Psychology and a member of the Center for Studies in Behavioural Neurobiology (CSBN), is conducting research focused on understanding how memories are physically created and stored in the brain.

It's one of the greatest mysteries of the human body, and Chapman is hopeful that further research may yield clues into how the human brain manages to store and preserve vast amounts of knowledge.

It may also help scientists develop treatments to prevent memory loss caused by old age or neurodegenerative diseases such as Alzheimer's disease.

"If we can understand how memories are created and stored, we'll have a better idea of what goes wrong as memory fails us," Chapman says.

What scientists do know is that each time we form a new memory, either by acquiring knowledge or by living through an experience, a memory trace, or engram, is formed in the brain, allowing impulses to travel in new patterns within complex networks of cells. But scientists have yet to figure out what causes some memories to be more vivid than others and why others tend to fade away with age.

Trained as an electrophysiologist, Chapman conducts his experiments with rats, whose brains share many of the same characteristics as humans. He surgically implants tiny electrodes into the rats and then stimulates those electrodes to examine how connections between neurons change to support new memories.

"We're chipping away at the problems and building up our understanding of the brain's microcircuitry," says Chapman, who joined Concordia four years ago.

It is Chapman's use of electrophysiology, which he mastered during a post-doctoral fellowship at l'Université de Montréal, which has added to the arsenal of research techniques employed at the CSBN. "Andrew's approach has taken us in slightly different directions," says Barbara Woodside, a more senior member of the centre.

Ironically, it wasn't a passion for science that first whetted Chapman's appetite for the field, but rather his love of the *Bob Newhart Show*, in which the veteran comedian portrayed a psychologist. It prompted Chapman, a native of Red Deer, Alta., to enroll in psychology courses while in high school.

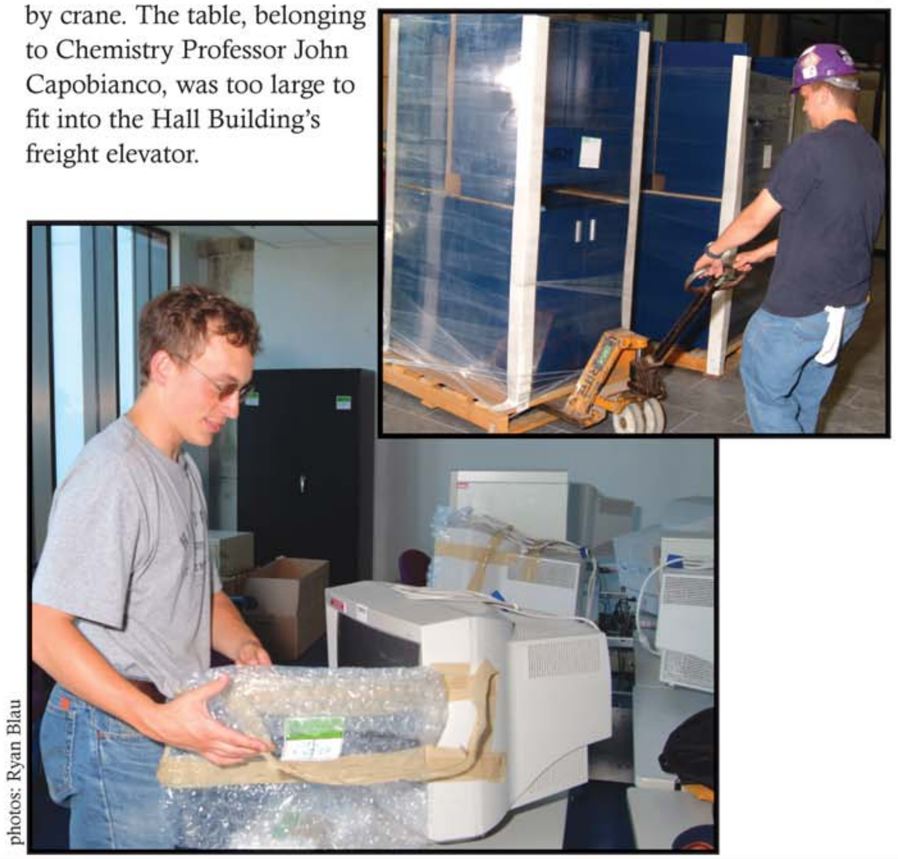
"I've always found it fascinating how the different components of the brain come together to give us our cognitive abilities," he says. Ⓟ

Not so quiet on the science front

It was a busy summer at Concordia University – and, in particular, on the roads linking the two campuses – as about 400 scientists, technicians, graduate students and administrators from the university's science departments moved into their new homes in the Loyola Science Complex.

By the time the operation wrapped up in August, movers had transported nearly 9,000 boxes and bins, as well as hundreds of pieces of fragile science equipment, from the upper floors of the downtown Henry F. Hall Building and Loyola's Drummond Science Building.

While most of the items were crated into boxes, some, like the giant laser table in the photo on the far right, had to be hauled out of the Hall Building by crane. The table, belonging to Chemistry Professor John Capobianco, was too large to fit into the Hall Building's freight elevator.



photos: Ryan Blau

Library readies for student influx

Andrew Dobrowolskyj

Call it the Great Move, part two. Although most of the attention at Concordia University this past summer has focused on shipping crates of computers and science equipment into the new Loyola Science Complex, an equally complex move transformed the university's two libraries, as Loyola's Georges P. Vanier Library set about restocking its shelves with science material in preparation for the influx of science students.

Overall, about 250,000 books, journals and encyclopedias had to be moved simultaneously between the two campuses – with the university's science collections shipped to Loyola and an equal number of materials, mainly from the arts and commerce fields, sent to the downtown R. Howard Webster Library to make way for the Vanier Library's new arrivals.

"It was a very rare and difficult move in the world of libraries," says David Thirlwell, head of the Vanier Library and chair of the task force overseeing what became known as the Science Transfer Project. "Most library moves are into new space, but this one presented us with a serious technical challenge."

The bulk of the move took place during the Victoria Day long weekend in May – the only period during which the libraries closed their doors. The books, which represented 10,000 shelves of material, wound up filling 11 tractor-trailer trucks.

It took library staff and students, like these pictured on the right, another two weeks to reshelf the books and journals at their new destinations as an additional 1.4 million volumes of material needed to be shifted within the libraries to accommodate the new arrivals.

Librarians on the Loyola campus also spent the summer bringing themselves up to speed on the intricacies of scientific research. Two reference librarians who specialize in science, Joanna Duy and Dubrovka Kapa, have relocated to Loyola from the downtown campus.

"We're looking forward to meeting a new population of library users and finding out what their needs are and what their study skills are like," says Thirlwell.

"Our understanding is that science students tend to spend more time studying in the library, but that they tend to be more independent workers with higher levels of computer skills. It's a theory, and we're waiting to see if it plays out."

Events to mark building opening

Several events will take place over the next few weeks to celebrate the opening of the Loyola Science Complex. On **Thursday, September 4**, Martin Singer, Dean of the Faculty of Arts and Science, will host a barbecue for the Faculty's students, professors and staff.

On **Saturday, September 6**, the Faculty will host an Open House for residents of the surrounding neighbourhoods. It will be the first opportunity for the general public to tour the new building.

The official inauguration of the Science Complex will take place on **Monday, September 22**, at 2 p.m. Dignitaries from the federal, provincial and municipal governments are expected to join with university officials at this celebration.

Guided tours of the Science Complex will be offered again on **Saturday, October 4**, as part of Homecoming celebrations.

Time capsule in the works

In order to commemorate the opening of the Loyola Science Complex, Concordia University has announced plans to embed a time capsule in the new building and is currently asking the general pubic to suggest items that should be included in it. Objects and documents in the time capsule should reflect Concordia, its Loyola Campus or the field of science in 2003.

The public is asked to e-mail suggestions to timecap@alcor.concordia.ca no later than September 8. Suggestions may also be forwarded by mail to the Time Capsule Task Force, c/o the Faculty of Arts and Science, 7141 Sherbrooke St. West, suite AD-232, Montreal, Quebec, H4B 1R6.

The task force will consider all suggestions and choose the most representative and creative ones. The time capsule will be placed in the Science Complex during the building's official opening celebrations on September 22.

Money to beat illiteracy

Concordia University's Centre for the Study of Learning and Performance (CSLP) has received a grant of nearly $1.7 million to establish a provincial research centre to study and combat illiteracy.

The grant, from the Fonds québecois de la recherche sur la société et la culture (FQRSC), will be payable in six annual installments.

The provincial centre is expected to include 40 researchers from eight Quebec universities and CEGEPs, including 13 Concordia faculty members, drawn from the Departments of Education and Psychology.

The centre will have two main goals – to gain a deeper understanding of learning difficulties and their relation to academic performance, and to develop concrete pedagogical solutions applicable in classrooms, says Phil Abrami, director of the CSLP.

Since its founding in 1988, the CSLP has sought to understand the factors that promote and hinder the learning and use of complex skills, including literacy. Over the years, researchers have also provided teachers and school administrators with tools and professional support to apply this new knowledge in their classrooms.

The new funding will enable the CSLP to foster greater collaboration among a cross-section of Quebec researchers and shows that the Quebec government is serious about improving literacy and cutting into the province's high-school dropout rate, Abrami says.

Kenneally to represent Ireland

Andrew Dobrowolskyj

Faculty of Arts and Science professor Michael Kenneally, director of Concordia University's Centre for Canadian Irish Studies, has been appointed Honourary Counsul-General for Ireland in Montreal.

The appointment was announced, fittingly, last March 17 – St. Patrick's Day.

Although the position is a voluntary one, it is certainly not ceremonial; Kenneally will be the Irish government's official diplomatic representative in Quebec and a key link between the province and the Irish embassy in Ottawa. He may also be asked to provide consular services to Irish citizens in distress.

The appointment "is a good step for Quebec-Ireland relations, and is good for Concordia in that we will be that much more aware of educational ventures and cultural exchanges taking place between the two communities," he said.

Kenneally, who holds dual Irish and Canadian citizenship, has been one of this country's leading authorities on Irish culture and literature since immigrating to Canada in 1964. He has headed up Concordia's Centre for Canadian Irish Studies since its founding in 2000 and also serves as the university's inaugural Chair in Canadian Irish Studies.

Snapshots

Congratulations to **Deidre Martin** and **Boulou Ebanda De B'béri**, doctoral students in the Department of Communication Studies, who recently won prestigious national awards. Martin received the Gerald Pratley Award, given annually to the country's top graduate student in Film Studies. She was presented with the award when the Film Studies Association of Canada convened in Halifax in May. Martin, whose research has explored the history of drive-in theatres in Canada, was also invited to deliver a keynote address at the conference. De B'béri is this year's winner of the Van Horne Prize, awarded annually to the student who presents the best paper at the Canadian Communication Association conference, which this year took place in Halifax in June. Each of the awards was worth $1,000.

Seven faculty members were recently promoted to Full professor. They are: **Sally Cole** (Sociology and Anthropology), **Marcel Danis** (Political Science), **Mary Di Michele** (English), **Robert Kilgour** (Exercise Science), **William Knitter** (Education), **Claire Le Brun** (Études françaises), and **Marie France Wagner** (Études françaises).

Concordia's Office of University Advancement and Alumni Affairs has unveiled the **Nadia Gagliano Student Teaching Award**, a $500 prize to be awarded annually to a top student entering their fourth year of Concordia's Early Childhood and Elementary Education program. The award commemorates Nadia Gagliano, a former student in the program who passed away last year. The award will be presented to a student who best combines academic excellence with community involvement and dedication to children and the educational profession.

Congratulations to **Vladimir Titorenko**, a Professor in the Department of Biology, and **Christine DeWolf**, a Professor in the Department of Chemistry and Biochemistry, who learned in June that they will receive sizeable research grants from the Canada Foundation for Innovation (CFI). Titorenko's grant totals $247,000, while DeWolf will receive $158,000. Both grants came from the CFI's New Opportunities Fund, which recognizes new researchers whose work will have a direct and beneficial impact on Canadians and Canadian society. The government's announcement included a total of $33.5 million worth of grants to 282 researchers at Canadian universities.

The **TESL Alumni Chapter** will host a Homecoming Event on Tuesday, September 30, at 5:30 p.m. in the Henry F. Hall Building, room 763-5. Alumni and faculty members will be on hand to discuss their teaching careers in Montreal and overseas. A cocktail reception will follow. Cost is $10. For more information, call (514) 848-2424, ext. 4856 or visit the Homecoming web site - http://alumni.concordia.ca/homecoming.

Concordia's **Center for Studies in Behavioural Neurobiology**, housed in the Department of Psychology, will celebrate its 20th anniversary this fall with a two-day symposium on October 17 and 18. The gathering, which will be on the university's Loyola Campus, is expected to attract many of Canada's top behavioural neuroscientists, and will offer the center's faculty members an opportunity to present some of their research. The CSBN was founded in 1983 to promote interdisciplinary research on the brain and human behaviour. The Center currently has 10 researchers.

Top donors feted

Nearly 100 of Concordia University's top donors attended this year's Rector's Circle Dinner, held in June at Le Club St. Denis. The Rector's Circle was established 15 years ago to recognize donors who contribute $2,000 a year or more to the university's fundraising campaigns. Several current and former professors from the Faculty of Arts and Science are also members of the Rector's Circle. Among those attending this year's dinner were (from left) Professor Emeritus Jack Kornblatt (Biology), Professor Judith Kornblatt (Chemistry and Biochemistry), Martin Singer, Dean of the Faculty, his wife, Maria Singer, Professor Frances Shaver (Sociology and Anthropology), Professor Norman Segalowitz (Psychology), Professor Elizabeth Gatbonton (Education), and retired Professor Gwen Newsham (TESL), accompanied by Dale Wharton.

New options in Spanish studies

With demand for Spanish courses and programs climbing skyward, the Faculty of Arts and Science has announced plans to bolster its Spanish curriculum, placing a new emphasis on cultural issues and introducing a minor program in Spanish Translation.

As of September 2004, undergraduate students enrolling in a Spanish program will be able to choose from two academic streams – a Literature and Society option, which will explore the way in which literary discourse has shaped Spanish society, and an Expression and Culture option, which will focus on a broader range of Spanish cultural expression.

"We need to keep pace with the many new perspectives that are evolving in the discipline by offering a broader section of courses," says Catherine Vallejo, Chair of the Department of Classics, Modern Languages and Linguistics (CMLL).

The Expression and Culture option will provide students with an opportunity to explore areas beyond the traditional literary perspective, such as women and writing, current issues in Spain and Spanish America, Spanish pedagogy, and the language of business, Vallejo says.

Students registered in either stream will be able to take courses from the other stream. It is expected that completion of either option will allow students to pursue graduate studies.

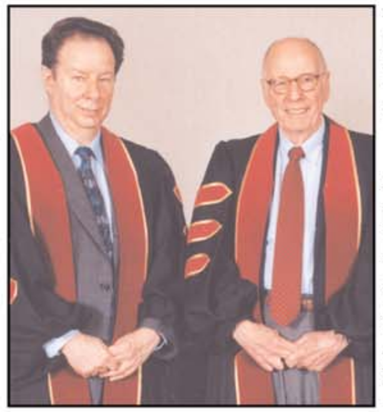
The minor in Translation Studies, also set to debut in September of 2004, will consist of 33 credits, including five courses designed to help students gain language competency, and four courses devoted exclusively to translation.

Spanish is among the fastest growing areas of study at Concordia University. Student enrolment has grown 43 per cent since 1995, and the Department of CMLL has hired five tenure-track Spanish professors in the last five years.

Top scientists honoured with Class of 2003…

As part of celebrations leading up to the opening of the Loyola Science Complex, the Faculty of Arts and Science took advantage of its June convocation ceremony to bestow honourary degrees on four of North America's leading scientists – Sidney Altman (below, left), John Tyler Bonner (below, right), Eric Kandel (top, left) and Larry Swanson (top, right).

Altman, a Montreal native who grew up just blocks from Concordia University's Loyola Campus, won the 1989 Nobel Prize for Chemistry for his groundbreaking work with enzymes and proteins. Though his discoveries were first greeted with skepticism, they eventually led to the rewriting of the introductory chapters of biology and chemistry textbooks.



Altman is currently a Professor of Biology at Yale University in New Haven, Connecticut.

Bonner, a Professor Emeritus of Biology at Princeton University in New Jersey, has dedicated his career to uncovering some of the smallest and most complex secrets of scientific life. Though he has published extensively on the subjects of evolution and biological development, his seminal work may well be his autobiography, *The Lives of a Biologist: Adventures in a Century of Extraordinary Science*, which has been hailed as an illuminating look into the life of a scientist.

Kandel, a Professor of Physiology and Psychology at Columbia University in New York, was co-recipient of the 2000 Nobel Prize for Medicine, awarded for advancing scientific knowledge of the brain and its ability to form memories. He and his family had fled Nazi-occupied Austria in 1939, and he later explained that it was contact with Nazi rule that influenced his later interest in the mind and human behaviour.

Swanson, a Professor of Biological Sciences at the University of Southern California in Los Angeles, is considered to be one of the world's most prominent neuroscientists. He has played a leading role in unraveling and understanding brain circuitry, essentially mapping the brain and its neural connections. He has published several brain atlases, which are used by neuroscientists worldwide.

…and 1,650 graduates receive degrees

As student enrolment in the Faculty of Arts and Science continues to rise, so too does the size of its graduating classes. Overall, 1,652 students graduated from the Faculty this June. Among the graduating class were 1,412 students who received Bachelor's or Baccalaureate degrees, 135 who received Master's or Magesteriate degrees, and 22 who completed Doctorates. Thirty-eight students completed undergraduate certificates, and 44 received graduate diplomas.

Among this year's graduating class were the Faculty's two valedictorians; Onyenychukwu Nnorom (right), graduated with Great Distinction with a BSc Honours in Cell and Molecular Biology, and was also a member of Science College. Alexandra Stockwell (left) also graduated with Great Distinction, earning a BA Honours in English Literature, with a major in Western Culture and Society and a minor in Classical Archaeology. She was also a member of the Liberal Arts College. Both are now planning to pursue graduate studies at McGill – Nnorom has been accepted into McGill's Faculty of Medicine and hopes to one day practice family medicine, while Stockwell has been accepted in McGill's Faculty of Law and is contemplating a career in family law.

Andrew Dobrowolskyj

A star is born

Playwright's career in orbit with success of *Mambo Italiano*

Galluccio: Mambo king

Ryan Blau

Steve Galluccio admits that he had grown tired of the tiny playhouses, the small crowds and the inexpensive sets that had become characteristic of his career on the margins of Montreal's theatre scene.

Even more worrisome was the fact that after penning seven plays, he was becoming typecast as a second-rate playwright, able to attract a loyal following on the fringe theatre circuit but not quite talented enough to appeal to the masses.

"I was tired of doing the alternative stuff," says Galluccio, a 1982 graduate of Concordia University's translation program. "My name was becoming associated with the twisted underground theatre, and I knew that I had to reinvent myself."

The result was *Mambo Italiano*, a poignant and hilarious look at what happens when a gay Italian man decides to "come out" to his conservative family. The play, based loosely on events in Galluccio's own life, has turned out to be one of Canada's biggest homegrown theatrical smashes ever, playing to record-breaking crowds at Montreal's Centaur Theatre last year before moving on to Toronto's 1,500-seat Elgin Theatre, where it enjoyed a run of 50 shows, nearly all of which were sold out.

The film adaptation, which Galluccio co-wrote with director Émile Gaudreault, is set to take North America by storm when it opens in cinemas on September 19. The movie has been playing in Quebec theatres all summer, where it has raked in more than $2.2 million at the box office, making it one of the province's top summer movies.

Seemingly overnight, Galluccio has become a local celebrity of sorts, sought out for his opinions on everything from the Italian community's view of gays and lesbians to the prospects of Quebec's film industry.

"It's a bit overwhelming in the sense that everything has happened so quickly," he says. "All of a sudden, so many people want to interview you and take your photo."

But Galluccio, who honed his creative writing skills at Concordia through a series of independent courses, has had ample time to prepare for stardom. Throughout the year that it took him to write the first draft of *Mambo Italiano*, he says that he had the feeling that this would be the play that would vault him into the mainstream. He credits the success in part to groundbreaking television shows like *Will & Grace* and *Sex and the City*, which were among the first to beam gay characters and once-taboo sexual topics into North American living rooms.

"What would have been considered edgy 10 years ago is no longer so edgy," he says. "Society has caught up to the work that I was creating.

"I wrote a simple story about love and family, and if you bring people in and make them laugh, then they won't see a difference between gay love and straight love." Ⓟ

> "My name was becoming associated with the twisted underground theatre, and I knew that I had to reinvent myself."

Divine intervention

Graduate student seeks to help churches reach out to shut-ins

Andrew Dobrowolskyj

McCormack: clerical pursuits

When Helene McCormack is in need of spiritual enlightenment, she can easily walk over to her nearest church, just blocks from her Montreal home. But for many elderly parishioners, getting out of their homes and making their way to a place of worship is too difficult a journey to contemplate.

With the population continuing to age and people living longer, the issue of ministering to congregants who are confined to their homes is one that religious institutions must increasingly consider.

Many elderly congregants "are people who have been active in church life all of their lives," McCormack says. "Suddenly, when they most need religion and spiritualism in their lives, they are unable to physically get to the church building, and they really miss that connection."

It's an issue that McCormack, a Master's student in Concordia University's Department of Theological Studies, has spent much of the past year examining. Her research is spearheaded by a $15,000 grant that Concordia received from the Father Dowd Foundation, which funds projects related to the elderly.

During the first phase of the project, McCormack sent questionnaires to 150 clergymen, church administrators and volunteers in the Montreal area in an effort to measure the depth of the problem and determine the effectiveness of home visits to elderly shut-ins.

McCormack will publish her findings, along with practical suggestions, in a booklet set to be published this month. It will be distributed to local parishes in the fall.

Concordia's theologians are also planning to host a two-day workshop on the issue this October as part of their annual Theology in Conversation lecture series.

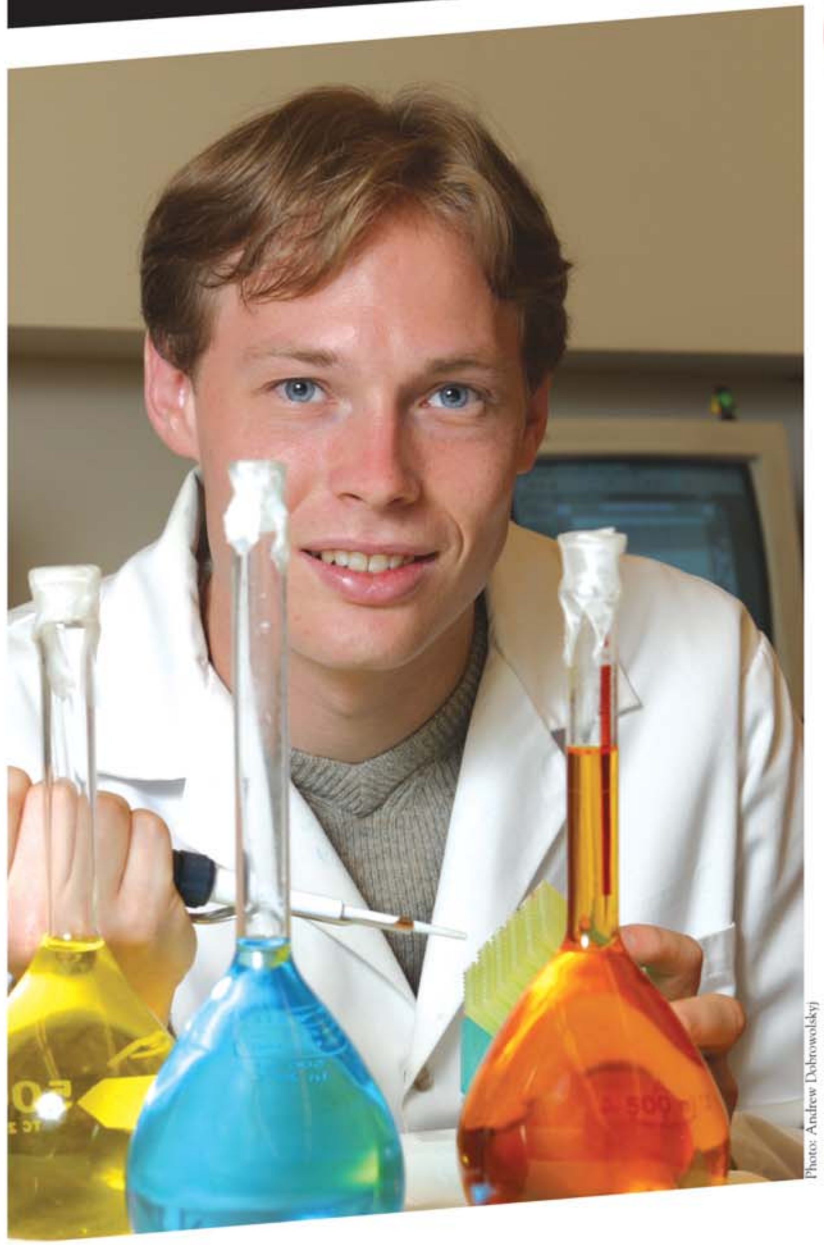
If that conference proves to be popular, the university may add courses on pastoral home visits to its curriculum, says Pamela Bright, chair of the Department of Theological Studies.

"The broad question is, how can we reach out to this group of people who are not able to make it to religious gatherings?" Bright says. "Theologically speaking, it's a question of finding out if these people feel remembered and cared for."

> "How can we reach out to this group of people who are not able to make it to religious gatherings? Theologically speaking, it's a question of finding out if these people feel remembered and cared for."

And though McCormack's research took place primarily within a Catholic context, the results are likely to prove useful to leaders of all religious and ethnic communities who cater to aging populations. In fact, McCormack's research will complement a similar study conducted by the Canadian Ethnocultural Council, which examined how ethnic communities service elderly shut-ins.

"We reached out to the Catholic community because that's where we have a lot of connections," Bright says. "But this is not a one-denominational issue." Ⓟ



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"I chose to study chemistry at Concordia University's Faculty of Arts and Science primarily because of the co-op program. It was a great way to learn about the field of chemistry and gain valuable work experience. There is no doubt in my mind that Concordia University was the right choice for me. It definitely helped me get into the PhD program at Stanford."

Andrew McClory
PhD student in Organic Chemistry
Stanford University
Chambly County High School, class of '93
Champlain College, class of '95
Concordia University, class of '99
BSc in Chemistry
Graduate of co-op program

Photo: Andrew Dobrowolskyj

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New home

(continued from page 3)

The Loyola Science Complex contains more than 300 rooms dedicated to laboratory teaching and research. An extensive system of service corridors will enable researchers and technicians to transport chemicals and biological materials away from public areas.

And for the first time at Concordia, graduate students and post-doctoral fellows will have dedicated office space outside of laboratories for study, data analysis and thesis preparation.

The building was financed through generous private donations and money borrowed through a bond issue. The Faculty of Arts and Science has committed a further $3 million to furnish and equip the Science Complex and had spent several million dollars in recent years to replace equipment in science teaching laboratories in advance of the building's opening.

The opening of the Science Complex coincides with the Faculty of Arts and Science's ambitious efforts to rebuild its professorial ranks – a move that was triggered in large part by the recent and impending retirements of many senior professors.

The Faculty has hired more than 150 tenured and tenure-track professors since 1997, including 32 in the science disciplines, and there are plans to hire another 60 professors over the next three years.

"We can construct the most stunning science complex in Canada and fill our laboratories with the most sophisticated equipment available, but it is this new cohort of young professors and researchers who will ultimately determine how strong our science programs become," says Singer, the Faculty's dean.

Great depths

(continued from page 5)

trade in his spectacular view for a more spacious laboratory at Loyola. The new setup also affords his graduate students with office space outside of the lab.

"The Hall Building wasn't bad, but we had to adapt to its size limits," Gélinas says. "In the Loyola Science Complex, everything has been built according to our needs. It will be easier to perform experiments and it will be more pleasant for my students."

Strokes

(continued from page 4)

would tell you that they have seen an improvement in the quality of their lives."

The move into the Loyola Science Complex this past summer has enabled Leroux to set up for the first time an on-campus laboratory, which will feature more sophisticated equipment and will yield even more precise measurements.

But Leroux's work has already given hope to the participants in his study.

"Most of these people were told by their doctors that they would never walk again," says Maria Fragapane, a Concordia graduate and co-supervisor of the exercise clinic. "Before, they never would have become involved in an exercise class. But they're motivated now and with time, we're able to retrain them to the point where they can regain some of their muscular function."

Contributors

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